N62604.AR.001848
NCBC GULFPORT
5090.3a

TRANSMITTAL LETTER FOR SUMMARY LISTING OF ALL CHEMICAL ANALYSES, SPECIFIC LABORATORY PROTOCOLS AND DETECTION LIMITS TO BE USED FOR COMPREHENSIVE SOIL ANALYSIS NCBC GULFPORT MS
12/2/1987
TYNDALL AIR FORCE BASE

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE ENGINEERING AND SERVICES CENTER
TYNDALL AIR FORCE BASE FL 32403-6001

2 DECEMBER 87

REPLY TO ATTN OF: RDVW (MAJ STODDART)

SUBJ: COMPREHENSIVE ANALYTICAL PROTOCOLS; NCBC SOIL SAMPLES

TO: MS CORON FALCONER
EPA, REGION IV
345 COURTLAND ST
ATLANTA, GEORGIA 30365

1. Please find enclosed the summary listing of all chemical analyses, specific laboratory protocols and detection limits that will be used for "comprehensive" analysis of NCBC soil samples called for per II.I.3.b of the 23 November RD&D permit. This submittal clarifies the "e" footnote that originally specified industry standard protocols.

2. I recommend that before we split samples, representatives of the IT Corp. laboratory and your laboratory discuss the analytical protocols to ensure that the same procedures are employed by both laboratories. This coordination should prevent difficulties in interpreting the lab test results.

3. Please advise as to the method you would like to employ as we split samples. Will you have representatives on site?

4 Should you wish to discuss this submittal, please contact me at the NCBC field office, telephone; 601-864-4139 or at Tyndall AFB, tele; 904-283-2942.

Terry L Stoddart

Terry L Stoddart, Maj, USAF, BSC
Chief, Environmental Restoration R&D

CERTIFICATION STATEMENT

REQUIRED BY 40 CFR 270.11 (d)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Terry L Stoddart

Terry L Stoddart, Maj, USAF, BSC
CH, Environmental Restoration R&D

12/2/87
DATE

Idaho National Engineering Laboratory

December 1, 1987

Major T. L. Stoddart
HQ AFESC/RDVW
Building 1117
Tyndall AFB, FL 32403

Comprehensive Ash Analysis Methods CEF-49-87

Please find attached the list of constituents, the analysis method, and the respective detection limit for the comprehensive analysis to be performed per II.I.3.b. of the NCBC permit dated 11/23/87.

It is my understanding that EPA may want a split of the sample for duplicate analysis in another laboratory. Per EPA direction, we will sample at their request. Unless notified otherwise we will make the split sample in the same form requested by our subcontracted laboratory which consists of 1-250 ml sample and 3-500 ml samples.

I suggest that questions regarding methods be handled directly with our subcontracted laboratory contact to avoid coinfusion and delays. Our subcontractor contact is:

SNELL MILLS
International Technology Corporation
5815 Middlebrook Pike
Knoxville, TN
Phone (605)588-6401

Very Truly Yours,

Carl Friedrich
NCBC Site Demonstration
Project Manager

Attachment as stated:

cc: H. G. Gibson IT Corp w/attachments
Snell Mills IT Corp w/attachments
J. O. Zane EG&G Idaho wo/attachments

DIOXINS/FURANS BY LOW RESOLUTION GC/MS

Constituent	Analytical Method	Reference	Detection Limit µg/kg (ppb)
Arsenic	CLP	1	10.0
Barium	CLP	1	200.
Benzidine([1,1'-biphenyl]-4,4' diamine)	SW 846/CLP	4	2,600
Benzo[a]anthracene (1,2 benzanthracene)	8310	3	2.0
Benzo[b]fluoranthene (2,3-benzofluoranthene)	8310	3	2.0
Benzo[a]pyrene (3,4-benzopyrene)	8310	3	2.0
Bis(2-chloroethoxy)methane (ethane,[methylenebis (oxy)]bis[2-chloro-])	CLP	2	330
Bis(2-chloroisopropyl) ether (propane,2,2'-oxybis[2-chloro-])	CLP	2	330
Cadmium	CLP	1	5.0
Chlorinated benzenes, N.O.S.			
1,2,4,5-Tetrachlorobenzene	SW 846/CLP	4	330
1,2,3,5-Tetrachlorobenzene			
Chlorinated phenol, N.O.S.			
2,4-Dichlorophenol	CLP	2	330
2,6-Dichlorophenol	SW 846/CLP	4	330
2,5-Dichlorophenol	SW 846/CLP	4	330
3,4-Dichlorophenol	SW 846/CLP	4	330
2,3,4-Trichlorophenol	SW 846/CLP	4	330
2,4,5-Trichlorophenol	CLP	2	1,600
2,4,6-Trichlorophenol	CLP	2	330
2,3,4,5-Tetrachlorophenol	SW 846/CLP	4	330
2,3,4,6-Tetrachlorophenol			
Chromium	CLP	1	10.0
Chrysene (1,2-benzphenanthrene)	8310	3	1.0
Coal tars	Analyzed as methyl phenols and PAH's (CLP/8310)		
Creosote (creosote, wood)			
Cresols (cresylic acid) (phenol, methyl-)	CLP	2	330
Dibenz[a,h]anthracene (1,2,5,6-dibenzanthracene)	8310	3	1.0
3,3'-Dichlorobenzidine ([1,1'-biphenyl]-4,4'-diamine,3,3'-dichloro-)	CLP	2	660
2,4-Dichlorophenoxyacetic acid (2,4-D), salts and esters (acetic acid,2,4-dichlorophenoxy-, salts and esters)	8150	3	20.
4,6-Dinitro-o-cresol and salts (phenol, 2,4-dinitro-6-methyl-, and salts)	CLP	2	1,600
2,4-Dinitrophenol (phenol,2,4-dinitro)	CLP	2	1,600
2,4-Dinitrotoluene (benzene,1-methyl-2,4-dinitro-)	CLP	2	330

DIOXINS/FURANS BY LOW RESOLUTION GC/MS (continued)

Constituent	Analytical Method	Reference	Detection Limit µg/kg (ppb)
2,6-Dinitrotoluene (benzene,1-methyl-2,6-dinitro-)	CLP	2	330
Fluoranthene (benzo[j,k]fluorene)	8310	3	2.0
Hexachlorodibenzo-p-dioxins	8280	3	0.1-0.3
Hexachlorodibenzofurans	8280	3	0.1-0.3
Hydroxydimethylarsine oxide (cacodylic acid)		(As Arsenic)	
Indeno(1,2,3-cd)pyrene(1,10-1,2-phenylene) pyrene	8310	3	3.0
Lead	CLP	1	5.0
Mercury	CLP	1	0.2
Nickel	CLP	1	40.0
4-Nitrophenol (phenol,4-nitro-)	CLP	2	1,600
N-Nitrosodimethylamine (dimethylnitrosamine)	SW 846/CLP	4	330
Pentachlorodibenzo-p-dioxins	8280	3	0.1-0.3
Pentachlorodibenzofurans	8280	3	0.1-0.3
Phenol (benzene,hydroxy)	CLP	2	330
Polychlorinated biphenyl, N.O.S.	CLP	2	100-210
Selenium	CLP	1	5.0
Silver	CLP	1	10.0
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) (Dibenzo-p-dioxin,2,3,7,8-tetrachloro-furan)	CLP	5	0.1-0.3
Tetrachlorodibenzo-p-dioxins	8280	3	0.1-0.3
Tetrachlorodibenzofurans	8280	3	0.1-0.3
Toxaphene (camphene,octachloro-)	CLP	2	210
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (Acetic acid,2,4,5-trichlorophenoxy-)	8150	3	2.0
pH	9040	3	Standard Units
Cyanide	9010	3	500
Sulfide	9030	3	200
EP Toxicity Extraction	1310	3	-
Corrosivity (as pH)	9040	3	Standard Units
Total Cyanides	9010	3	10

REFERENCES

(1) U.S. Environmental Protection Agency (EPA), 1987, "Chemical Analytical Services for Multi-Media Multi-Concentration Metals and Inorganics", Statement of Work 7/87, WA-87-K026, U.S. EPA, Washington, D.C.

(2) U.S. Environmental Protection Agency (EPA), 1987, "Chemical Analytical Services for Multi-Media Multi-Concentration Organics, GC/MS Techniques", Statement of Work, 7/87. WA-87-K236, U.S. EPA, Washington, D.C.

(3) U.S. Environmental Protection Agency (EPA), April 1984, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Revised Second Edition.

(4) These compounds are not a part of the CLP list. The method will include Reference 2 protocol with modifications from Reference 3.

(5) U.S. Environmental Protection Agency (EPA), 1986, "Dioxin Analysis, Soil/Sediment and Water Matrices Multi-Concentration, Selected Ion Monitoring (SIM) GC/MS Analysis", Statement of Work 9/86, WA-86-K357, U.S. EPA, Washington, D.C.